

PENDING CLAIMS
Application No. 10/450,108
Attorney Docket No. 05725.1198
Filed: June 11, 2003

- 5 1. Composition comprising, in a physiologically acceptable medium containing a fatty phase, at least one first polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one
10 hetero atom, and optionally b) at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, and at least one or more fibres.
- 15 2. Composition according to Claim 1, characterized in that the average molar mass of the first polymer is less than 100 000, preferably less than 50 000.
- 20 3. Composition according to Claim 1 or 2, characterized in that the units containing a hetero atom of the first polymer comprise a nitrogen atom.
- 25 4. Composition according to one of the preceding claims, characterized in that the units containing a hetero atom of the first polymer are amide groups.
5. Composition according to one of the preceding claims, characterized in that the fatty chains represent from 40% to 98% and better still from 50% to 95% of the total number of units containing a hetero atom and of fatty
30 chains.
6. Composition according to one of the preceding claims, characterized in that the pendent fatty chains are linked directly to at least one of the said hetero atoms.

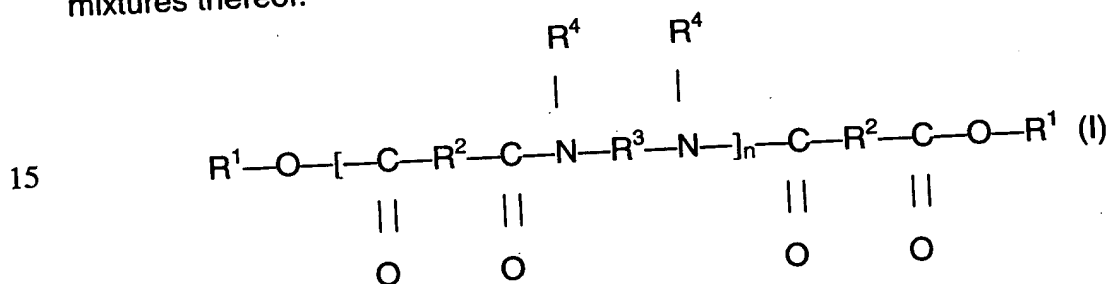
7. Composition comprising, in a physiologically acceptable medium comprising a fatty phase, at least one first polyamide polymer with a weight-average molecular mass of less than 100 000, comprising a) a polymer skeleton containing amide repeating units, and b) optionally at least one pendent fatty chain and/or at least one terminal fatty chain, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these amide units, and one or more fibres.
8. Composition according to the preceding claim, characterized in that the fatty chains represent from 40% to 98% of the total number of amide units and of fatty chains.
9. Composition according to Claim 7 or 8, characterized in that the fatty chains represent from 50% to 95% of the total number of amide units and of fatty chains.
10. Composition according to one of Claims 7 to 10, characterized in that the pendent fatty chains are linked directly to at least one of the nitrogen atoms of the amide units.
11. Composition according to one of the preceding claims, characterized in that the average molar mass of the first polymer ranges from 1 000 to 100 000, preferably from 1 000 to 50 000 and better still from 1 000 to 30 000.
12. Composition according to one of the preceding claims, characterized in that the weight-average molar mass of the first film-forming polymer ranges from 2 000 to 20 000 and preferably from 2 000 to 10 000.

13. Composition according to one of the preceding claims, characterized in that the terminal fatty chain(s) is (are) linked to the skeleton via bonding groups.

5 14. Composition according to Claim 13, characterized in that the bonding groups are ester groups.

15. Composition according to one of the preceding claims, characterized in that the fatty chain(s) contain(s) from 12 to 68 carbon atoms.

10 16. Composition according to one of the preceding claims, characterized in that the first polymer is chosen from polymers of formula (I) below, and mixtures thereof:



in which n denotes a number of amide units such that the number of ester groups represents from 10% to 50% of the total number of ester and amide groups; R¹ is, independently in each case, an alkyl or alkenyl group containing at least 4 carbon atoms; R² represents, independently in each case, a C₄ to C₄₂ hydrocarbon-based group, on condition that 50% of the groups R² represent a C₃₀ to C₄₂ hydrocarbon-based group; R³ represents, independently in each case, an organic group containing at least 2 carbon atoms, hydrogen atoms and optionally one or more oxygen or nitrogen atoms; and R⁴ represents, independently in each case, a hydrogen atom, a C₁ to C₁₀ alkyl group or a direct bond to R³ or to another R⁴, such that the nitrogen atom to which R³ and R⁴ are both attached forms part of a heterocyclic structure defined by R⁴-N-R³, with at least 50% of the groups

30 R⁴ representing a hydrogen atom.

17. Composition according to the preceding claim, characterized in that R^1 is a C_{12} to C_{22} alkyl group.

18. Composition according to either of Claims 15 and 16, characterized in that R^2 are groups containing from 30 to 42 carbon atoms.

19. Composition according to one of the preceding claims, characterized in that the first polymer is present in a content ranging from 0.01% to 10% by weight, relative to the total weight of the composition, preferably ranging from 0.05% to 5% by weight and better still ranging from 0.1% to 3% by weight.

20. Composition according to one of the preceding claims, characterized in that the fibre(s) is(are) chosen from silk, cotton, wool or flax fibres, cellulose fibres extracted in particular from wood, plants or algae, polyamide, cork, sugar cane, rayon or viscose fibres, acetate fibres, in particular rayon acetate, cellulose acetate or silk acetate fibres, poly-(p-phenyleneterephthalamide) fibres, acrylic polymer fibres, in particular polymethyl methacrylate or poly-2-hydroxyethyl methacrylate fibres, polyolefin fibres and in particular polyethylene or polypropylene fibres, glass, silica or carbon fibres, in particular in graphite form, polytetrafluoroethylene, insoluble collagen, polyester, polyvinyl chloride or polyvinylidene chloride, polyvinyl alcohol, polyacrylonitrile, chitosan, polyurethane or polyethylene phthalate fibres, fibres formed from mixtures of polymers, and surgical fibres, and mixtures thereof.

21. Composition according to any one of the preceding claims, characterized in that the fibres are fibres of synthetic origin.

22. Composition according to one of the preceding claims, characterized in that the fibre(s) contain(s) a chemical group of the same chemical nature

as that of the units of the structuring polymer or a group capable of forming physical bonds of the same type as that of the units of the polymer.

23. Composition according to one of the preceding claims, characterized
5 in that the fibre is hydrophobic-treated.

24. Composition according to any one of the preceding claims,
characterized in that the fibres are polyamide fibres or poly-
(p-phenyleneterephthamide) fibres.

10 25. Composition according to any one of the preceding claims,
characterized in that the fibres have a length L and a diameter D such that
L/D is chosen in the range from 1.5 to 2 500, preferably from 3.5 to 500 and
better still from 5 to 150.

15 26. Composition according to any one of the preceding claims,
characterized in that the fibres have a length ranging from 1 nm to 20 mm,
preferably from 10 nm to 5 mm and more preferably from 0.1 mm to
1.6 mm.

20 27. Composition according to one of the preceding claims, characterized
in that the fibre is present in a content ranging from 0.1% to 40% by weight,
relative to the total weight of the composition, preferably from 1% to 30%
by weight and better still from 5% to 20% by weight.

25 28. Composition according to any one of the preceding claims,
characterized in that it contains at least one wax.

29. Composition according to any one of the preceding claims,
30 characterized in that it contains at least one wax having a melting point of
greater than 30°C, which may be up to 120°C.

30. Composition according to any one of the preceding claims, characterized in that it contains a wax chosen from the group formed by beeswax, lanolin wax, Chinese insect waxes, rice wax, carnauba wax, candelilla wax, ouricury wax, cork fibre wax, sugar cane wax, Japan wax, 5 sumach wax, montan wax, microcrystalline waxes, paraffin waxes, ozokerites, ceresin wax, lignite wax, polyethylene waxes and the waxes obtained by Fisher-Tropsch synthesis, fatty acid esters of glycerides that are solid at 40°C, the waxes obtained by catalytic hydrogenation of animal or plant oils containing linear or branched C₈-C₃₂ fatty chains, silicone 10 waxes and fluoro waxes, and mixtures thereof.

31. Composition according to any one of the preceding claims, characterized in that it comprises a wax having a hardness ranging from 0.05 MPa to 15 MPa.

15 32. Composition according to any one of Claims 28 to 31, characterized in that the wax is dispersed in an aqueous medium in the form of particles with an average size ranging from 50 nm to 10 µm and preferably ranging from 50 nm to 3.5 µm.

20 33. Composition according to any one of Claims 28 to 32, characterized in that the wax is present in a content ranging from 0.1% to 50% by weight, relative to the total weight of the composition, preferably from 0.5% to 30% by weight and better still from 1% to 20% by weight.

25 34. Composition according to any one of the preceding claims, characterized in that it contains a volatile oil or organic solvent.

30 35. Composition according to Claim 34, characterized in that the volatile oil is chosen from hydrocarbon-based volatile oils containing from 8 to 16 carbon atoms.

36. Composition according to Claim 34 or 35, characterized in that the volatile oil is present in a content ranging from 0.1% to 98% by weight, relative to the total weight of the composition, and preferably ranging from 1% to 65% by weight.

5

37. Composition according to one of the preceding claims, characterized in that it comprises a non-volatile oil.

38. Composition according to one of the preceding claims, characterized in that it also contains at least one non-volatile oil chosen from
10 hydrocarbon-based oils of mineral, plant or synthetic origin, synthetic esters or ethers and silicone oils, and mixtures thereof.

39. Composition according to one of the preceding claims, characterized in that the fatty phase is present in a content ranging from 2% to 98% by
15 weight, relative to the total weight of the composition, preferably ranging from 5% to 85% by weight.

40. Composition according to any one of the preceding claims, characterized in that it comprises an aqueous phase.

20

41. Composition according to any one of the preceding claims, characterized in that it comprises a second film-forming polymer which is different from the first polymer.

25 42. Composition according to Claim 41, characterized in that the second film-forming polymer is chosen from the group formed by vinyl polymers, polyurethanes, polyesters, polyamides, polyureas and cellulose polymers.

43. Composition according to Claim 41 or 42, characterized in that the
30 second film-forming polymer is dissolved in an aqueous phase or is in the form of particles in aqueous dispersion.

44. Composition according to any one of Claims 40 to 42, characterized in that the second film-forming polymer is dissolved or dispersed in the form of surface-stabilized particles in a liquid fatty phase.

5 45. Composition according to any one of Claims 40 to 44, characterized in that the second film-forming polymer is present in a content ranging from 0.1% to 60% by weight, relative to the total weight of the composition, preferably from 0.5% to 40% by weight and better still from 1% to 30% by weight.

10

46. Composition according to one of the preceding claims, characterized in that it also contains at least one dyestuff.

15 47. Composition according to Claim 46, characterized in that the dyestuff is chosen from pigments, naces, liposoluble dyes and water-soluble dyes, and mixtures thereof.

48. Composition according to Claim 46 or 47, characterized in that the dyestuff is present in a proportion of from 0.01% to 50% relative to the total
20 weight of the composition, preferably ranging from 0.01% to 30% by weight.

49. Composition according to one of the preceding claims, characterized in that it constitutes a care composition or make-up composition for keratin
25 materials.

50. Composition according to one of the preceding claims, characterized in that it contains at least one additive chosen from water, antioxidants, fillers, preserving agents, fragrances, neutralizing agents, thickeners and
30 cosmetic or dermatological active agents, and mixtures thereof.

51. Composition according to one of the preceding claims, characterized in that it is in the form of a mascara, an eyeliner, a product for the eyebrows, a product for the lips, a face powder, an eyeshadow, a foundation, a make-up product for the body, a concealer product, a nail
5 varnish, a skincare product or a haircare product.
52. Mascara comprising a composition according to any one of Claims 1 to 50.
- 10 53. Cosmetic process for making up or caring for the keratin materials of human beings, comprising the application of a cosmetic composition in accordance with one of Claims 1 to 51 to the keratin materials.
- 15 54. Use of a composition according to any one of Claims 1 to 51 to obtain a deposit which adheres to keratin materials.
55. Use of a mascara according to Claim 52 to thicken and/or lengthen the eyelashes.
- 20 56. Use of a combination of at least one first polymer with a weight-average molecular mass of less than 100 000 and better still less than 50 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and b) optionally at least one pendent fatty chain and/or at least one terminal fatty chain, which
25 may be functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, and at least one fibre, in a physiologically acceptable composition, to obtain a deposit which adheres to keratin materials.
- 30 57. Use according to Claim 56, characterized in that the fibre(s) contain(s) a chemical group of the same chemical nature as those of the

units of the first polymer or a group capable of forming physical bonds of the same type as that of the units of the first polymer.

5 58. Use according to Claim 56 or 57, characterized in that the first polymer is a polyamide comprising end groups containing an ester group comprising a hydrocarbon-based chain containing from 10 to 42 carbon atoms.

10 59. Use according to one of Claims 56 to 58, characterized in that the fibre is chosen from polyester fibres, polyamide fibres or poly-(p-phenylene terephthalamide) fibres.

15 60. Use according to one of Claims 56 to 59, characterized in that the first polymer has a weight-average molecular mass ranging from 1 000 to 30 000.

61. Use according to any one of Claims 56 to 60, characterized in that the composition comprises a second film-forming polymer which is different from the first polymer.

ABSTRACT**Cosmetic composition comprising a polymer and fibres**

The invention relates to a composition comprising, in a physiologically acceptable medium containing a fatty phase, a polymer with a weight-average molecular mass of less than 100 000 and in particular ranging from 1 000 to 30 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least one hetero atom, and optionally b) pendent fatty chains and/or terminal fatty chains, which may be functionalized, containing from 6 to 120 carbon atoms and being linked to these units, and fibres